

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Jurgen Scholzig
Ulrich Jung
Ruth Kremer
Thomas Walther

Application No. 10/031,157

Filed: January 14, 2002

For: SHEET-GUIDING DEVICE FOR A
PRINTING MACHINE

Art Unit: Unassigned

Examiner: Unassigned

PENDING CLAIMS AFTER ENTRY OF FURTHER PRELIMINARY AMENDMENT

19. A printing machine comprising:
a plurality of printing units for applying a liquid medium to a side of printing material;
at least one of said printing units being non-operating so as not to be involved in a
printing process during operation of the machine;
said at least one non-operating printing unit having a first cylinder and an associated
sheet-carrying cylinder, said sheet-carrying cylinder having grippers for engaging and
transferring a sheet through a nip defined between said first cylinder and said associated
sheet-carrying cylinder, and said first cylinder having a liquid repellent surface and being
rotatable at an operating speed of the printing machine with said associated sheet-carrying
cylinder conveying printing material through said nip with a printed side of said printing
material facing said first cylinder.

20. The printing machine of claim 19 in which said first cylinder is a blanket
cylinder having a varnish repellent surface.

21. The printing machine of claim 19 in which said first cylinder is a plate
cylinder having an ink repellent surface.

22. The printing machine of claim 19 in which said printing surface is defined by a printing plate on said first cylinder.

23. The printing machine of claim 19 in which said printing surface is defined by a film on said first cylinder.

24. The printing machine of claim 19 in which said printing surface is defined by a layer of silicone rubber.

25. The printing machine of claim 19 in which said printing surface is defined by a planographic printing plate operable for use in dampening-solution-free offset printing.

26. The printing machine of claim 19 in which said printing surface is defined by a relief surfaced printing plate.

27. The printing machine of claim 19 in which said first cylinder is electrically movable between a printing position and a removed non-printing position.

28. The printing machine of claim 19 in which said first cylinder is positionable in relation to the sheet-carrying cylinder with a predetermined printing pressure.

29. The printing machine of claim 19 in which said printing surface is defined by a composition that contains at least one of chromium, aluminium, or anodized aluminum.

30. The printing machine of claim 19 in which said printing surface is defined by an organic or inorganic hybrid polymer on an aluminum substrate.

31. The printing machine of claim 29 in which said printing surface has discontinuities in the form of cracks, gaps or pores which are filled with inlays of at least one fluoropolymer.

32. The printing machine of claim 19 in which said printing surface is polished to a mirror finish.

33. The printing machine of claim 19 including a metering system and applicator roll for applying a release agent to the printing surface.

34. The printing machine of claim 19 including a spray device extending the axial length of said first cylinder for directing a release agent onto the printing surface.

35. The printing machine of claim 19 including a device for controlling the temperature of the printing surface.

36. The printing machine of claim 19 including a cold air temperature control device for controlling the temperature of the printing surface.

37. The printing machine of claim 36 in which said temperature control device is operable from within the first cylinder.